

## **Summary**

In September 2009 Superintendent Craig Axtell assigned the Kings Canyon Management Team (KCMT) to coordinate an effort to make National Park Service (NPS) owned structures in Wilsonia *Fire Safe* to the same standards the NPS was holding private landowners. In the fall of 2009 the planning effort was completed with a scope of work defined for each NPS Property with structures on it. Additionally each property was inspected for objective hazards related to working around the property. In July of 2010 the project was completed.

## **Wilsonia**

Wilsonia is a mixture of private and federal property within Kings Canyon National Park. Many of the parcels have residential structures on them. The environment is a mixed coniferous type forest with many of the characteristics of an urban/ wildland interface, having closely spaced wood frame construction buildings intermixed in a very volatile fuel type.

The NPS owns ten parcels with residential structures in Wilsonia. Several of the parcels have small outbuildings and two of the parcels have two residential structures.

The NPS has been conducting Defensible Space Inspections of properties with structures in Wilsonia since 2005. The standards used during the inspections are the California State Standards and the inspections were documented on the California Notice of Defensible Space Inspection form an LE 100. A copy of the LE 100 was provided to the owner of each parcel. The LE 100 outlined the items that needed to be done to make the structure fire safe by California standards. The ten properties with structures owned by the NPS were also inspected and the LE 100 was completed, however no work was done to correct the deficiencies.

In September 2009 the Leadership Team toured Wilsonia to inspect NPS-owned cabins and discuss a range of issues related to Wilsonia. At the end of the meeting Superintendent Craig Axtell assigned the KCMT to coordinate a multidivisional effort to complete the work to make each NPS parcel with structures fire safe, meeting the standards the NPS was requesting of the private owners in Wilsonia.

## **Wilsonia Fire Safe Project**

In preparing for the project KCMT met and identified goals and objectives for the project. These were shared with the Leadership Team and approved.

### **Goal**

Complete a one-time operation to reduce the fuel loading and increase the defensible space around NPS-owned structures in Wilsonia.

### **Objectives**

- Identify standards for fire clearance
- Identify scope of work for each structure
- Identify safety and mitigate safety hazards for each property
- Complete fuel removal on individual properties in order of identified priority.
- Complete all work safely

The LE 100s from the ten NPS owned parcels were compiled and a work plan was established for each parcel. Each parcel had a recommended set of clearances to be raked, trees and limbs to be removed as well as porches and roofs needing to be cleared. In conjunction a safety evaluation was completed for each parcel and the hazards documented and flagged. The estimate of total work to be completed was 95 man hours. See chart below.

Pre Project Work Estimate

Address	Crew (5 Person)	Crew Hours	Man Hours	Class A Trees	Trees to be Limbed	Man Made Materials	Overhead Limbing
83688 Cedar Lane	1	2	10		5	Yes	Yes
83690 Cedar Lane	1	1	5		4	No	Yes
83663 Chinquapin Lane	1	3	15		1	Yes	Yes
83740 Hazel Lane	1	2	10	2	3	Yes	Yes
83681 President's Lane	1	3	15	10	2	Yes	Yes
83736 Park Road	1	2	10	5	4	Yes	Yes
83619 Grant Lane	1	2	10	12	12		No
83708 Fir Lane	1	3	15				No
83708 Fir Lane			0		2		No
83691 Fir Lane			0				No
83691 Fir Lane			0			Yes	No
83733 Cedar Lane	1	1	5				Yes
Totals			95	29	33		

Safety evaluations for each property were completed and objective hazards such as septic tanks, open pits, unstable structures and metal stakes were flagged and documented for each site.

All work scoping and the safety evaluations were completed in the fall of 2009. There was no on the ground work completed in 2009 because of incident load, work load and limited availability of resources.

The winter and spring of 2010 was very wet and late, snow remained on the ground in Wilsonia until the middle of June. In late June and early July, three workdays were scheduled to complete project work.

The actual clearing work was completed by hand crews using hand tools, there was some work with power saws and use of a Mule utility vehicle to move debris to road access. The debris was collected and sorted into natural and manmade material piles which were staged in areas accessible to heavy equipment. Once staged, the piles were removed using heavy equipment. The natural debris was placed in the Grant Grove boneyard, the man-made material was placed in a roll off dumpster for disposal. Approximately 40 dump loads of natural debris and 12 dump loads of manmade debris were removed.

The work took considerably longer to complete than anticipated, about 240 man hours total. This was due to the sheer volume of material that had accumulated over the years and the need to move it by hand further than anticipated. There was also more man-made debris than anticipated including a collapsed porch and a collapsed roof.

There were no injuries, near misses or damaged equipment reported during the operation.

**Cost and Man Hours Summary**

Man hours and associated programmed and un-programmed costs were tracked during the project. The costs include only personal services and do include fuel and some other insignificant supply expenditures. Un-programmed costs were overtime charges for Engine 51 on the first day of the project the cost were charged to the Kings Canyon District Overtime Account.

The following tables show programmed and un- programmed costs and man hours used, the estimates do not include planning and administrative time.

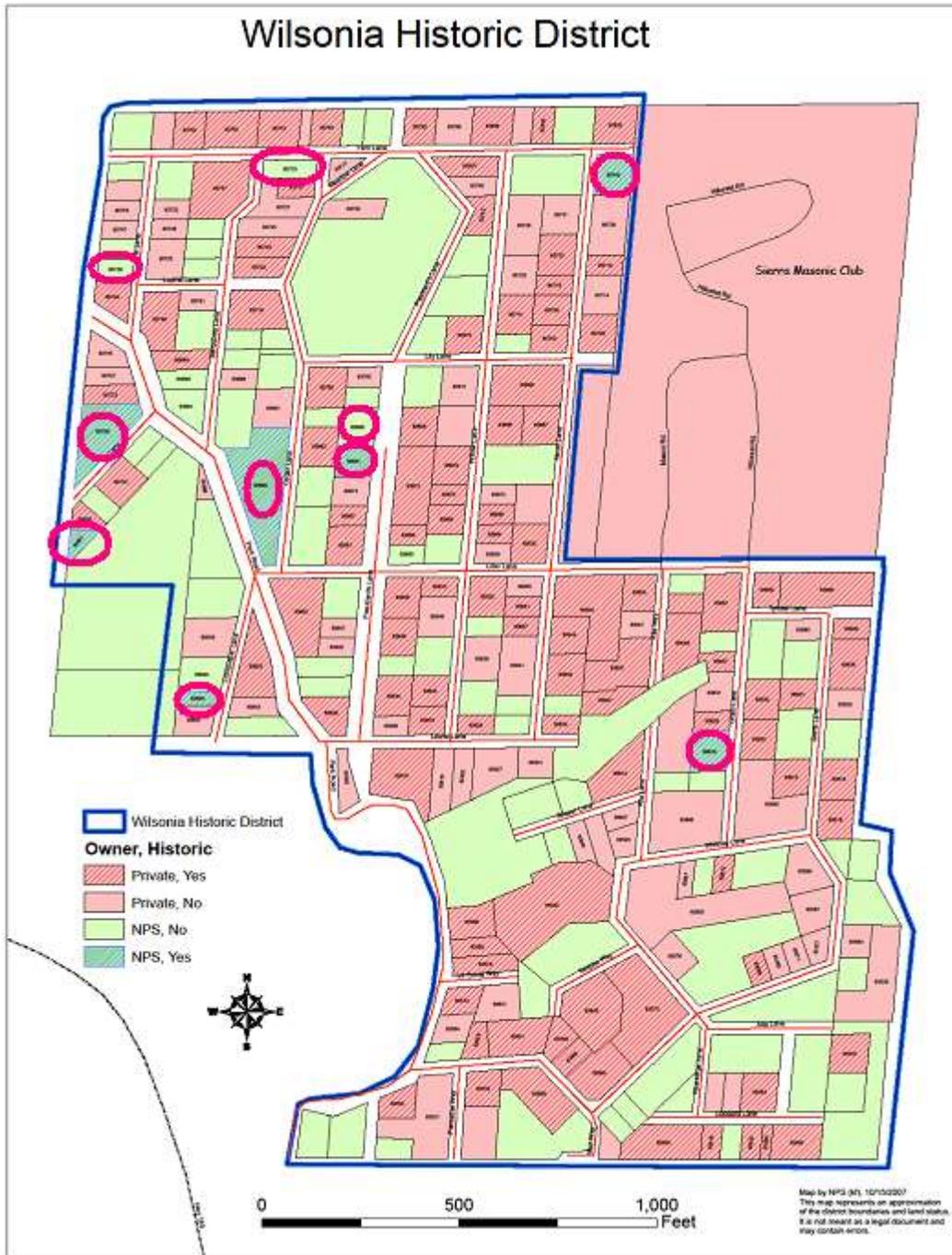
<b>Unprogrammed Personnel Costs</b>	\$1160
<b>Programmed Personnel Costs</b>	\$4100
<b>Total Project Cost</b>	\$5260

<b>Man Hours</b>	<b>6/21/10</b>	<b>6/22/10</b>	<b>7/9/10</b>	<b>Total</b>
Engine 51	51		42	93
Kings District Rangers	40	30	16	86
Road Crew		24	10	34
Kings Buildings and Grounds			24	24
Vegetation Crew			3	3
<b>Total Project Man hours</b>				<b>240</b>

**Conclusion**

The goals and objectives established for this project have been met and the assignment complete. The future maintenance of the defensible space for NPS owned structures has not been assigned. Without continued maintenance the NPS owned parcels with structures will rapidly deteriorate back to their original state.

National Park Service Properties Cleaned up During Project



Project Photos



83733 Cedar Lane

Before photo of cabin. Porch covered in litter, duff to foundation of cabin.



83733 Cedar Lane

After photo of cabin. Porch removed, duff raked 20 to 30 feet away from cabin.



83736 Park Road

Porch roof collapsed, heavy fuel in front of cabin, duff and litter to foundation of cabin.



83736 Park Road

Porch roof removed, heavy fuel in front of cabin removed, duff and litter raked 30 feet away from cabin.



83681 President's Way

Typical types and volume of debris which was removed. Natural duff and vegetation on left, manmade debris on right.



83691 Fir Lane

Typical type and volume of duff removed.



83663 Chinquapin Lane

Typical types of man made material removed.



83740 Hazel Lane

Crew 51 and rangers at working on clearing defensible space.



83740 Hazel Lane

Crew 51 and rangers at working on clearing defensible space.